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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,694	08/25/2003	Makoto Fujikubo	0505-1226P	9960
2292 , 7590 02/03/2005 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER CORRIGAN, JAIME W	
			ART UNIT 3748	PAPER NUMBER

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,694

Applicant(s)

FUJIKUBO, MAKOTO

Examiner

Jaime W Corrigan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10,11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 3,6,9,12 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the Amendment filed on 14 October 2004. Claims 3, 9 have been amended. Claims 13-17 have been added. Overall, claims 1-17 are pending in this application. The arguments with respect to the references applied in the first Office Action were deemed persuasive, however, a new Non-final rejection is set forth below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-8, 10-11, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art of Kawakubo et al. (JP10-238327).

Regarding claims 7, 13 Applicant's specification discloses an oil passage (See Paragraph [0003] Lines 1-3) formed so as to extend around said cylinder head, oil discharged from an oil pump (See Paragraph [0003] Lines 1-3) of the engine being fed through said oil passage, wherein a downstream end of said oil passage is in communication with a screw type lifter (See Paragraph [0003] Lines 1-3) of the engine.

Regarding claim 8 Kawakubo discloses camshafts (See Figure 8 (65), (85)) of the engine are rotatably supported by a plurality of cam journal walls (See Figure 6 (10), (46), (45a)) provided in the cylinder head and a plurality cam holders (See Figure 6 (45a)) fastened to the plurality of cam journal walls, respectively, wherein said oil passage is formed (See Detailed Description Paragraph 33) in such a manner as to pass through sliding-contact portions between said camshafts and one of the plurality of cam journal walls and one of the plurality of cam holders (See Figure 6 (10), (46), (45a)).

Regarding claims 10, 11 Kawakubo discloses a sub-gallery (See Figure 8 (53), (73)) is provided in a crankcase of the engine in such a manner as to be independent from a main-gallery (See Figure 9 (207)), said sub-gallery for leading (See Detailed Description Paragraph 33) oil from the oil pump to the oil passage extending around the cylinder head, and said main gallery for leading oil from the oil pump to portions to be lubricated at least in the crankshaft.

Regarding claim 14 Kawakubo discloses an upward end (See Figure 8 (65), (85), Detailed Description Paragraph 33) of the oil passage is in communication with the exhaust side camshaft and a downward end of the oil passage is in communication with the screw type lifter (See Figure 8 (88)).

Regarding claim 15 Kawakubo discloses the upward end of the oil passage extends in a direction that is parallel to a direction of the downward end of the oil passage (See Figure 9 (83a), (84a)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (PN 5,879,255).

Yamamoto discloses an oil passage structure (See Figure 2 (25)) for an engine, the engine including a tensioner arm (See Figure 1 (6)) provided in sliding-contact with a cam chain (See Figure 1 (3)), the cam chain being adapted to reduce the speed of a crankshaft by half and transmit the resultant power to camshafts (See Figure 1 (4)) of the engine for driving an intake valve (See Abstract, Column 3 Lines 14-23) and an exhaust valve of the engine, and a screw type lifter (See Figure 1 (10)) having a lifter rod (See Figure 1 (13)) with one end in contact with the tensioner arm (See Figure 1 (6)), the screw type lifter being provided in a cylinder block (See Figure 2 (8)) of the engine, said oil passage structure comprising: an oil passage formed so as to extend around said cylinder head, oil discharged from an oil pump (See Column 3 Lines 51-

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55) of the engine being fed through said oil passage, wherein a downstream (See Column 3 Lines 51-55) end of said oil passage (See Figure 2 (25)) is in communication with the screw type lifter; the camshafts (See Figure 1 (4)) are rotatably supported by a plurality of cam journal walls (See Figure 1 (5)) provided in the cylinder head and a plurality cam holders (See Figure 1 (5)) fastened to the plurality of cam journal walls, respectively, wherein said oil passage (See Figure 2 (25)) is formed in such a manner as to pass through sliding-contact portions between said camshafts (See Figure 1 (4)) and one of the plurality of cam journal walls and one of the plurality of cam holders (See Figure 1 (5)); a sub-gallery (See Figure 1 (5)) is provided in a crankcase of the engine in such a manner as to be independent from a main-gallery (See Figure 1 (2)), said sub-gallery for leading oil from the oil pump (See Column 3 Lines 51-55) to the oil passage (See Figure 2 (25)) extending around the cylinder head, and said main gallery (See Figure 1 (2)) for leading oil from the oil pump to portions to be lubricated at least in the crankshaft (See Figure 1 (1)); the oil passage extends from the oil pump (See Column 3 Lines 51-55) to an exhaust side camshaft (See Figure 1 (4)), to a intake camshaft (See Figure 1 (4)), and then to a screw type lifter (See Figure 1 (10)) of the engine.

Yamamoto discloses the claimed invention except for the screw type lifter being provided in a cylinder block of the engine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a lifter in a cylinder head, since it has been held that rearranging parts of an invention involves

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only routine skill in the art and lifters are routinely used in the head if the engine is of the type with an overhead cam.

Allowable Subject Matter

Claims 3, 6, 9, 12, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kiso et al. (PN 5,030,169), Yamamoto et al. (PN 5,713,809), Gill (PN 4,706,620), Van Deberg (PN 3,823,698) disclose similar oil passage structures.

Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose Carlyle telephone number is (571) 272-4858. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 6:00 p.m. 2nd Friday off.

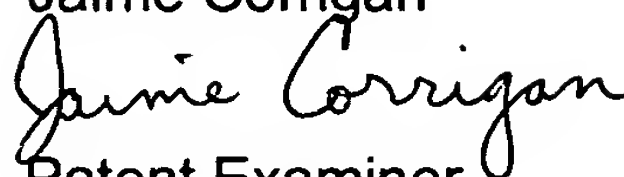
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) –272-4859. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3700.

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JC

Jaime Corrigan

Patent Examiner

January 30, 2005

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